

COMPOUND IDENTIFIED	1.0	6.0	24.0	48.0	72.0	96.0
Nonane, 4-methyl		1.9				
Octane, 3,6-dimethyl		2.3				
Pentane, 2,2,4-trimethyl (Isooctane)	1.6			0.7		
Pinene, a (2,6,6-Trimethyl-bicyclo[3.1.1]hept-2-ene)	3.4					
Styrene	7.0	3.1	5.5	5.5	4.2	6.5
Toluene (Methylbenzene)	9.2	0.7				
Unidentified						1.5
Xylene (para and/or meta)	4.8					
Xylene, ortho	2.0					
cis-1-Ethyl-3-methylcyclohexane*	4.0					

*Indicates best NIST/EPA/NIH library match only.

Individual compounds and TVOC (total volatile organic compounds) are calibrated relative to toluene.

TVOC detection limit: 0.9 µg/m³. Individual detection limits may vary, depending on instrument response.

Cushion C

Environmental Chamber,
Product Loading:
Test Conditions:

SA3
0.42 m²/m³
1.00 ACH
50.0% RH $\pm$ 5.0% RH
23.0 degs C $\pm$ 2.0 degs C
06/22/95 - 06/26/95

Test Period:

CHAMBER TVOC CONCENTRATIONS FROM 0.000 TO 96.000 HOURS

ELAPSED EXPOSURE HOUR	Tvoc CONCENTRATION ug/m3
0.000	0.0
1.000	915.0
6.000	826.6
24.000	265.3
48.000	366.9
72.000	253.1
96.000	38.8

IVOC CONCENTRATIONS(μ g/m³) FROM 0.000 TO 96.000 HOURS

COMPOUND IDENTIFIED	1.0	6.0	24.0	48.0	72.0	96.0
1,3-Dioxolan-2-one, cl-methyl'		5.9	4.8	11.0	9.1	
1-Octanol, 3,7-dimethyl*	2.0	2.4				
1-Pentanol, 2-methyl-*	1.5					
1-Pentanol, 4-methyl-2-propyl- (9CI)*	3.0					
2,2,7,7-Tetramethyloctane*	15.6	5.5				
2,6-Di-tert-butyl-4-methylphenol (BHT)	66.9	106.1	31.3	82.5	72.1	38.8
2-Hexanol, 5-methyl-*	4.5					
2-Propanol (Isopropanol)	2.2					

COMPOUND IDENTIFIED	1.0	6.0	24.0	48.0	71.0	96.0
2-Propanol, 1,3-dichloro-	74.8	106.3	41.6	65.2	86.3	
2-Propanone, 1-(dimethylamino)-*	5.6					
2H-2,4a-Methanonaphthalene, 1,3,4,5,6,7-hexahydro-1,1,5,5-tetramethyl -, (2S)-*	1.6	1.3	1.0	1.7	0.8	
4-Octanol, 4,7-dimethyl-		1.2				
Acetamide, N,N-dimethyl- (8CI9CI)		82.0	65.0	61.8		
Acetone (2-Propanone)	11.2					
Benzene, 1-ethyl-4-methyl (4-Ethyltoluene)	2.6					
Benzene, 1-methyl-4-(1-methylethyl) (p-Cymene; 4-Isopropyltoluene)*	2.2					
Benzene, (1,1-Dimethylethyl)- (t-Butylbenzene)*	6.8	2.0				
Butane, 2,2'-[methylenebis(oxy)]bis[2-methyl-*	1.5					
Cyclohexane, propyl	1.7					
Cyclohexanone, 4-methyl-*	1.4					
Cyclohexasiloxane, dodecamethyl*	8.9	9.4	3.1	1.6		
Cyclopentasiloxane, decamethyl*	145.4	123.7	7.3	0.8		
Cyclotetrasiloxane, octamethyl	132.3	32.1				
Decane, 2,5,9-trimethyl- (9CI)	5.0	4.6	0.7			
Decane, 2-methyl*	5.1	3.4				
Decane, 3-methyl	16.8	5.1				
Decane, 4-methyl	10.3	6.1				
Dodecane	3.4	1.2				
Ethane, 1,1,1-trichloro	2.8					
Ethane, 1,2-dichloro	1.9					
Ethane, 1,1'-oxybis[2-chloro- (s-Dichloroethyl ether)		1.2				
Ethanol	10.9					

COMPOUND IDENTIFIED	1.0	6.0	24.0	48.0	72.0	96.0
Ethene, 1,1,2,2-tetrachloro (Tetrachloroethylene)	2.7					
Formamide, N,N-dimethyl	2.8	78.9	13.5	6.1		
Hepiane, 2,2,4,6,6-pentamethyl (8Cl9Cl)*	6.8	1.9				
Heptane, 2,2,6,6-tetramethyl*	11.2	1.3				
Heptane, 4-ethyl-2,2,6,6-tetramethyl- (9Cl)	18.9	7.3				
Hexanal (Hexaldehyde)	1.4					
Hexane, 1,1'-Oxybis (Hexyl ether*)	1.5					
Hexane, 2,2,4-trimethyl	2.3					
Isooctane, (ethenyloxy)- (9Cl)*		1.3				
Methanol	28.7		5.4			
Methylene chloride (Dichloromethane)	5.1					
N,N-Dimethyl-2-propenamide	5.0	100.9	70.9	126.8	82.6	
Nonane	2.9					
Nonane, 2,5-dimethyl-*	13.1	5.9				
Nonane, 3,7-dimethyl*	3.4					
Nonane, 3-ethyl	1.9					
Nonane, 3-methyl	1.5					
Nonane, 4,5-dimethyl*	2.1	-				
Octane, 2,2-dimethyl*	4.7					
Octane, 2,3,6-trimethyl-*	2.7					
Octane, 2,3-dimethyl*	2.3					
Octane, 2,6-dimethyl	3.0					
Oxetane, 2,4-dimethyl-, trans-*	5.9	1.2				
Oxirane , (chloromethyl)-•				1.4		
Pentane*	1.3					
Pentane, 2,2,4-trimethyl (Isooctane)	9.2	1.4				
Pentane, 2,3,4-trimethyl	3.4					

COMPOUND IDENTIFIED	1.0	6.0	24.0	48.0	72.0	96.0
Pentane, 3-ethyl-2,2-dimethyl- (8Cl9Cl)*	2.8					
Phenol		2.7		1.5	2.0	
Propane,? , 2,3-trichloro	129.0	111.5	20.6	6.5		
Toluene (Methylbenzene)	59.9	2.5				
Undecane	9.4	4.1				
Undecane, 6-methyl-*	3.2	1.3				
Unidentified	5.7	2.3				
Xylene (para and/or meta)	7.1					
Xylene , ortho	2.8					
a-Methylstyrene (iso-Propenylbenzene; (I-Methylethenyl)benzene)	3.7	2.3				

*Indicates best NIST/EPA/NIH library match only.

Individual compounds and TVOC (total volatile organic compounds) are calibrated relative to toluene.

TVOC detection limit: 0.9 µg/m³. Individual detection limits may vary, depending on instrument response.

Cushion D

Environmental Chamber.

Product Loading:

Test Conditions:

SA4

0.40 m²/m³

1.00 ACH

50.0% RH ± 5.0% RH

23.0 degs C ± 2.0 degs C

Test Period:

06/26/95 - 06/30/95

CHAMBER TVOC CONCENTRATIONS FROM 0.000 TO 96.000 HOURS

ELAPSED EXPOSURE HOUR	TVOC CONCENTRATION (µg/m ³)
0.000	0.0
1 .000	349.0
6.000	634.9
24.000	421.6
48.000	345.8
72.000	NA*
96.000	212.0

*NA: data not available due to laboratory error.

IVOC CONCENTRATIONS (µg/m³) FROM 0.000 TO 96.000 HOURS

COMPOUND IDENTIFIED	1.0	6.0	24.0	48.0	96.0
1,4-Dimethylpiperazine	58.5	319.1	71.4	55.3	
1H-Cyclopropa[a]naphthalene, 1a,2,3,5,6,7,7a,7b-octahydro-1,1,7,7a- -tetramethyl-, [1aR-(1aα,7α,7aα,7bα)] *		1.3	1.7		1.3
2,2,7,7-Tetramethyloctane*	0.8				
2,6-Di-tert-butyl-4-methylphenol (BHT)	23.5	108.1	149.9	122.1	100.9
2-Butenal*	2.1				

COMPOUND IDENTIFIED	1.0	6.0	24.0	48.0	96.0
2-Propanol (isopropanol)	2.5				
4-Isobutylmorpholine*	1.1				
Acetamide, N,N-dimethyl- (8CI9CI)	13.0	19.4	15.7	11.0	7.4
Acetate, butyl	1.1				
Acetic acid, hydroxy-				1.0	
Acetone (2-Propanone)	5.9				
Benzene, 1,2,4-trimethyl	0.7				
Benzene, 1,2-dichloro	7.7	8.0	5.3	3.8	1.9
Benzene, ethyl	1.0				
Benzene, propyl	1.0				
Butane, 2-methyl (Isopentane)	1.8				
Cyclohexasiloxane, dodecamethyl*	0.8	1.7	2.3		
Cyclopentasiloxane, decamethyl*	3.8	2.8			
Decane	3.6				
Decane, 2-methyl	2.5				
Decane, 5-methyl*	0.9				
Dodecane		1.3			
Ethane, 1,1,1-trichloro	38.5	23.6	14.0	10.0	5.6
Ethanol	2.2				
Ethanol, 2-butoxy	1.8	2.0			
Heptane, 2,2,4,6,6-pentamethyl (8CI9CI)*	2.0				
Hexane, 2,2,4-trimethyl*	0.5				
Nonane	0.8				
Nonane, 3,7-dimethyl*	1.5				
Nonane, 4-methyl	1.2				
Octane, 2,2,6-trimethyl*	0.9				
Octane, 2,3,6-trimethyl-*	0.8				

COMPOUND IDENTIFIED	1.0	6.0	24.0	48.0	96.0
Octane, 2,3-dimethyl	1.2				
Pentane, 2,2,4-trimethyl (Isooctane)	2.1				
Pentane, 2,3,4-trimethyl*	0.6				
Phenol		1.0			
Pinene, a (2,6,6-Trimethyl-bicyclo[3.1.1]hept-2-ene)	1.1				
Styrene	40.6	40.3	23.1	12.2	4.2
Toluene (Methylbenzene)	16.9	4.0			
Undecane	1.6	1.0			
Unidentified	100.8	101.2	138.2	130.4	90.7
Xylene, ortho	1.5				

*Indicates best NIST/EPA/NIH library match only.

Individual compounds and TVOC (total volatile organic compounds) are calibrated relative to toluene.

TVOC detection limit: 0.9 µg/m³. Individual detection limits may vary, depending on instrument response.

Cushion E

Environmental Chamber: SA5
Product Loading: 0.42 m²/m³
Test Conditions: 1.00 ACH
50.0% RH ± 5.0% RH
23.0 degs C ± 2.0 degs C
Test Period: 06/26/95 - 06/30/95

CHAMBER TVOC CONCENTRATIONS FROM 0.000 TO 96.000 HOURS

ELAPSED EXPOSURE HOURS	TVOC CONCENTRATION (µg/m ³)
0.000	0.0
1.000	1447.1
6.000	1631.1
24.000	1260.0
48.000	856.1
72.900	572.9
96.000	177.7

IVOC CONCENTRATIONS (µg/m³) FROM 0.000 TO 96.000 HOURS

COMPOUND IDENTIFIED	1.0	6.0	24.0	48.0	72.0	96.0
1,2-Propanediol (Propylene glycol)	3.1	27.1	28.1	26.8	20.2	
1,3-Butanediol*	4.2	44.9	40.4	41.5	30.6	
1,3-Cyclohexadiene, 1-methyl-4-(1-methylethyl)-*	2.5		2.2			
1,4-Cyclohexadiene, 1-methyl-4-(1-methylethyl)- (9CI)			0.8			
1,4-Dimethylpiperazine				2.1		
1,4-Dioxane, 2-methyl-3-methylene-*			3.1			
1-Heptanol, 6-methyl*	1.7					

COMPOUND IDENTIFIED	1.0	6.0	24.0	48.0	72.0	96.0
1-Undecene, 8-methyl-*	6.5	5.3				
2(3H)-Furanone,dihydro (Butyrolactone)*		3.3	3.5'	2.9	1.9	
2,3-Butanediol	2.9	28.2	24.5	26.2	19.8	
2,6-Octadien-1-ol, 3,7-dimethyl-, (Z)-*		1.7				
2-Butanone, 3-hydroxy-*		2.1				
2-Decene, 4-methyl-, (Z)*	6.2					
2-Decene, 7-methyl-, (Z)-*	5.7	2.7				
2-Decene, 8-methyl-, (Z)-*	3.0	1.6				
3-Cyclohexene-1-methanol, $\alpha,\alpha,4$ -trimethyl-, acetate*	43.7	69.1	49.8	54.7	35.7	20.2
4-Dodecene*	8.0	6.9				
4-Phenylcyclohexene	2.3	9.8	8.4	5.5	3.0	1.6
4-Undecene, (Z)-*	7.0	6.3				
5-Undecene, (E)	8.3	6.4				
6-Dodecene, (E)- (8CI9CI)*		3.1				
Acetamide, N,N-dimethyl- (8CI9CI)		2.7	2.5	3.4	1.7	
Acetate, methyl (Acetic acid, Methyl ester)	11.4	1.7				
Acetic acid	1170.4	1271.3	1004.8	641.7	426.1	137.5
Acetic acid, phenylmethyl ester (Benzyl acetate)		8.4	3.9	2.1	1.2	
Acetone (2-Propanone)	16.8	3.7				
Benzaldehyde		8.1	4.1	2.8	1.7	2.2
Benzyl alcohol (Benzenemethanol)		7.1	4.4	6.0	3.8	1.6
Bicyclo[3.1.1]heptane-2-methano l, 6,6-dimethyl-, acetate*	0.3					

COMPOUND IDENTIFIED	1.0	6.0	24.0	48.0	72.0	96.0
Bicyclo[7.2.0]undec-4-ene, 4,11,11-trimethyl-8-methylene-, [1 R-(1R@,4Z,9S@)]-*	1.2	1.4	1.3			
Cedrene, α^*	5.8	5.3	5.7	2.5	4.8	1.7
Cyclohexane, 1,1'-oxybis*		2.5	2.1	1.2		
Cyclohexanol		1.8				
Cyclohexanol, 1-methyl-4-(1-methylethenyl)-, acetate*	1.2	1.3	0.9			
Cyclohexene, 1-methyl-4-(1-methylethylidene)-*	22.3	20.1	9.0	2.7	1.0	0.9
Cyclopentasiloxane, decamethyl*	21.4	2.4				
Cyclopropane, 1-ethyl-2-heptyl- (9Cl)*	7.3	4.7				
Cyclotetrasiloxane, octamethyl	1.3					
Decane		1.4		1.9		
Ethanol	3.1	1.8				
Limonene (Dipentene; 1-Methyl-4-(1-methylethyl)cyclohexene)	25.9	35.0	31.0	13.9	6.0	6.6
Methanol	24.6					
Nonane, 2,6-dimethyl*	2.0					
Propanoic acid		19.6	16.8	12.3	9.5	1.5
Toluene (Methylbenzene)	4.8					

COMPOUND IDENTIFIED	1.0	6.0	24.0	48.0	72.0	96.0
Tricyclo[5.4.0.0.2,8]undec-9-ene, 2,6,6,9-tetramethyl-*	7.7	8.3	7.7	4.8	4.8	3.1
Unidentified	14.7	4.4	5.0	1.1	1.3	0.9

*Indicates best NIST/EPA/NIH library match only.

Individual compounds and TVOC (total volatile organic compounds) are calibrated relative to toluene.

TVOC detection limit: 0.9 $\mu\text{g}/\text{m}^3$. Individual detection limits may vary, depending on instrument response.

Carpet B at Elevated Conditions (70 °C, 8% RH, high loading)

Environmental Chamber: SC4
Product Loading: 1.64 m²/m³
Test Conditions: 1.00 ACH
 8.0% RH ± 2.0% RH
 70.0 degs C ± 5.0 degs C
Test Period: 06/21/95 - 06/21/95

CHAMBER TVOC CONCENTRATIONS FROM 0.000 TO 99.000 HOURS

ELAPSED EXPOSURE HOUR	Tvoc CONCENTRATION (µg/m ³)
0.000	9.5
1.000	> 35649.5
6.000	7127.5

IVOC CONCENTRATIONS (µg/m³) FROM 0.000T06.000 HOURS

COMPOUND IDENTIFIED	0.0	1.0	6.0
1,2-Ethanediol (Ethylene glycol)		98.3	466.0
1,3-Butanediol, (S)-*			4.3
1,4-Pentadien-3-ol*		36.3	7.9
1-Butanol (N-Butylalcohol)		165.1	12.3
1-Decanol (N-Decyl alcohol)		60.6	21.6
1-Decene, 8-methyl		292.6	92.5
1-Dodecanol		766.5	63.4
1-Dodecene*		51.8	17.5
1-Heptanol, 6-methyl*		1163.7	288.2
1-Hexene		4.5	
1-Octanol, 2-butyl- (8CI9CI)*		7.1	178.7
1-Octene, 2,6-dimethyl-*		74.6	22.5

COMPOUND IDENTIFIED	0.0	1.0	6.0
1-Propanol (Propyl alcohol)		57.7	13.3
1-Propanol, 2-(2-hydroxypropoxy)*		405.1	371.5
1-Propene, 3-chloro-2-methyl-*		9.1	2.9
1-Tetradecanol*		468.6	13.8
2(1 i-i)-Naphthalenone, octahydro-4a,7,7-trimethyl-, trans-•		142.4	9.1
2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate (Texanol)		267.2	33.7
2,2-Dimethyl-1-isopropyl-1,3-prop anediol monoisobutyrate (Texanol)		137.3	29.0
2,6-Di-tert-butyl-4-methylphenol (BHT)		2351.0	328.3
2,6-Octadien-1-ol, 3,7-dimethyl-, acetate, (Z)-*		78.8	6.3
2,6-Octadien-1-ol,3,7-dimethyl, (E) - (Geraniol)*		10.4	6.4
2-Butanone (Methyl ethyl ketone, MEK)		5.0	
2-Butenal, 2-ethenyl-*			2.4
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-*		14.3	6.9
2-Decene, g-methyl-, (Z)-*		217.8	44.4
2-Decene, (Z)-*			
2-Decene, 3-methyl-, (Z)-*		327.7	79.0
2-Decene, 5-methyl-, (Z)-*		387.6	173.0
2-Decene, 7-methyl-, (Z)-*		220.0	35.8
2-Dodecen-1-yl(-)succinic anhydride*		1090.4	
2-Dodecene, (E)*		322.3	
2-Naphthalenemethanol, α-methyl-, (.+/-)-*			6.3

COMPOUND IDENTIFIED	0.0	1.0	6.0
2-Octene, (E)-*		12.6	
2-Octene, (Z)-*		8.7	
2-Octene, 4-ethyl-*		96.7	
2-Pentanone, 4-hydroxy-4-methyl- (8CI9CI)*		64.6	4.9
2-Pentanone, 4-methyl (Methyl isobutyl ketone, MIBK)*		5.2	
2-Propanol (Isopropanol)		21.1	4.1
2-Propen-1-ol, 2-methyl		6.0	0.8
2-Propenal*			3.9
2-Propenoic acid, methyl ester*		37.6	13.6
2-Undecene, 2,5-dimethyl-*		500.0	172.2
2H-Benzocyclohepten-2-one, decahydro-4a-methyl-, trans-•		1214.1	
3,5-Cyclohexadiene-1,2-dione, 3,5-bis(1, 1-dimethylethyl)-•			11.5
3-Buten-2-ol*		3.9	
3-Cyclohexene-1-methanol, $\alpha,\alpha,4$ -trimethyl-*		82.8	29.5
3-Cyclohexene-1-methanol, $\alpha,\alpha,4$ -trimethyl-, acetate*		61.5	9.4
3-Decene*		273.3	106.1
3-Decene, 2-methyl-, (Z)-•		985.6	281.6
3-Dodecene, (E)*		527.3	158.6
3-Dodecene, (Z)- (8CI9CI)*		63.6	
3-Ethyl-2-methyl-1-heptene*			3.1
3-Octene, 2,6-dimethyl-*		99.1	18.2
3-Undecene, 2-methyl-, (E)-•		1660.4	469.6
4-Decene, 3-methyl-, (E)-•		697.0	
4-Dodecene*		521.5	152.5

COMPOUND IDENTIFIED	0.0	1.0	6.0
4-Isobutylmorpholine		> 1317.7**	547.3
4-Nonene, 3-methyl, (Z)		551.7	126.6
4-Nonene, 5-methyl-*		56.0	34.0
4-Octene, (E)*		35.0	
4-Octene, 2,3,6-trimethyl-*			130.5
4-Phenylcyclohexene		58.7	10.2
4-Piperidinecarboxylic acid, 4-phenyl-, ethyl ester*		633.1	26.2
4-tert-Butylcyclohexyl acetate*			3.3
5-Dodecene, (E)*		191.6	49.5
5-Undecene, (E)*		1045.9	331.1
5-Undecene, (Z)- (8CI9CI)*		1789.0	403.0
6-Dodecene, (E)- (8CI9CI)		816.4	348.0
Acetamide, N,N-dimethyl- (8CI9CI)		404.3	60.5
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butynyl]-*		264.1	28.2
Acetate, ethyl		4.0	
Acetic acid	0.9		153.3
Acetone (2-Propanone)		78.0	23.1
Azulene, 7-ethyl-1,4-dimethyl-*			8.1
Benzene, 1-ethyl-4-methyl (4-Ethyltoluene)		43.1	
Benzene, ethyl		23.4	
Benzene.1 , 1'-Oxybis- (Diphenyl ether)'		126.4	10.3
Benzoic acid, 2-hydroxy-, 3-methylbutyl ester"		399.7	53.6
Benzoic acid, 2-hydroxy-, pentyl ester*		333.3	10.1

COMPOUND IDENTIFIED	0.0	1.0	6.0
Benzoic acid, 3-(5-hydroxy-1-pentenyl)-, methyl ester, (E)-*		138.0	4.7
Benzothiatole			8.8
Butane		6.7	
Butanoic acid			10.3
Caryophyllene oxide*		464.7	
Cyclohexane, (1-methylpropyl)-*		44.1	4.2
Cyclohexane, 1,1,2-trimethyl*		11.6	1.2
Cyclohexane, 1,1-dimethyl-2-propyl-*		278.0	163.0
Cyclohexane, 1-ethenyl-3-methylene-5-(1-propenylidene)-*			2.0
Cyclohexane, 1-ethyl-2-methyl-, cis- (8CI9CI)*		17.5	3.9
Cyclohexane, methyl		5.2	
Cyclohexane, octyl*			33.6
Cyclohexane, propyl		61.0	
Cyclohexane, t-1-ethyl-4-methyl*		32.8	
Cyclohexanol, 2-methylene-3-(1-methylethyl)-, acetate, cis-*		52.6	15.1
Cyclopentane, 1,2,4-trimethyl, (1 α ,2 β ,4 α)*		11.0	1.7
Cyclopentasiloxane, decamethyl*		99.5	25.9
Decane		910.6	46.7
Decane, 6-ethyl-2-methyl- (9CI)*		12.1	
Dipropylene glycol		229.4	23.7
Disiloxane, pentamethyl-*			4.1
Dodecane		122.8	11.2

COMPOUND IDENTIFIED	0.0	1.0	6.0
Ethane, 1 , 1,1-trichloro		4.7	
Ethanol		210.4	4.7
Ethanol, 2-(2-butoxyethoxy)		224.8	105.2
Ethanol, 2-butoxy		35.6	3.7
Ethanol, 2-phenoxy-		84.4	36.6
Furan,tetrahydro; THF	2.0		
Heptadecane*			2.4
Heptanal (Heptaldehyde)*			2.8
Heptane		15.6	
Heptane, 2,4-dimethyl		25.0	
Heptane, 2,5-dimethyl*		13.6	
Heptane, 3-methyl		10.9	
Heptane, 3-methylene- (9CI)*		16.6	
Heptane, 4-methyl		12.4	
Hexadecane (Cetane)		235.7	10.5
Hexadecane, 2,6,10-trimethyl-*			10.0
Hexane, 2,2,5-trimethyl- (8CI9CI)*		126.6	5.2
Hexane, 2,2-dimethyl		67.5	
Hexane, 3-methyl		15.8	
Hexanoic acid		77.6	66.4
Isobornyl acetate*		363.5	
Methanesulfonyl chloride*			1.9
Morpholine, 4-methyl	6.6		3.4
Naphthalene		69.7	22.3
Naphthalene, 1,2-dimethyl-*		79.8	3.4
Naphthalene, 1,4,6-trimethyl*		120.2	8.2
Naphthalene, 1 ,4-dimethyl*		193.8	5.2
Naphthalene, 1,6-dimethyl*		199.9	10.7

COMPOUND IDENTIFIED	0.0	1.0	6.0
Naphthalene, 1,6-dimethyl-4-(1-methylethyl)-*		436.3	
Naphthalene, 1-methyl		23.5	5.3
Naphthalene, 2,3,6-trimethyl- (8CI9CI)*			18.5
Naphthalene, 2,7-dimethyl*		96.0	3.8
Naphthalene, 2-methyl		28.3	10.8
Naphthalene, 6(1-ethylpropyl)-1,2,3,4-tetrahydro •		123.9	9.3
Naphthalene, decahydro-4a-methyl-1-methylene -7-(1-methylethylidene)- (4aR- trans)-*		298.7	12.4
Nonane		84.8	2.0
Nonane, 3-methyl		73.1	
Nonane, 4-methyl		31.7	3.3
Octane		23.1	
Octane, 2,6-dimethyl		121.1	15.6
Octane, 2-methyl		17.7	
Octane, 3-methyl		43.6	14.4
Octane, 4-ethyl*		75.8	
Pentadecane, 2,6,10,14-tetramethyl-*		469.9	
Pentane, 2,2,4-trimethyl (Isooctane)		560.7	
Pentane, 2,3,4-trimethyl		61.6	
Pentane, 2,3-dimethyl (8CI9CI)*		11.8	
Pentane, 2,4-dimethyl*		8.4	
Pentanoic acid (Valeric acid)		30.1	20.2
Phenol		183.4	68.7

COMPOUND IDENTIFIED	0.0	1.0	6.0
Phenol, 4,6-di(1,1-dimethylethyl)-2-methyl- •		79.6	2.0
Phenol, bis(1,1-dimethylethyl)- (9CI)*			8.0
Propanedioic acid, diproyl-, diethyl ester*		747.7	59.4
Pyridine, 1,2,3,6-tetrahydro-4-[4,5-dihydrox yphenyl]-1 -methyl-*		52.5	
TXIB (2,2,4-Trimethyl-1,3-pentanediol diisobutyrate)		324.8	19.2
Terbutol*		66.5	
Tetradecane		110.0	3.4
Toluene (Methylbenzene)		289.2	
Tridecane		22.8	
Trimethylamine (methanamine,N,N-dimethyl)*			0.6
Unidentified		1840.9	30.8
Xylene (para and/or meta)		52.9	
Xylene, ortho		127.9	
t-2-Pentenal*		7.6	
t-5-Decene*		74.1	23.8

*Mites best NIST/EPA/NIH library match only.

• Values marked with • >. symbol were outside linear range of detector. Concentration value is a lower bound only.

Individual compounds and TVOC (total volatile organic compounds) are calibrated relative to toluene.

TVOC detection limit: 0.9 µg/m³. Individual detection limits may vary, depending on instrument response.

Cushion B at Elevated Conditions (70 °C, 8% RH, high loading)

Environmental Chamber: **SC5**
Product Loading: **1.65 m²/m³**
Test Conditions: **1.00 ACH**
8.0% RH ± 2.0% RH
70.0 degs C ± 2.0 degs C
Test Period: **06/21/95 - 06/21/95**

CHAMBER TVOC CONCENTRATIONS FROM 0.000 TO 6.000 HOURS

ELAPSED EXPOSURE HOUR	Tvoc CONCENTRATION (µg/m ³)
0.000	0.0
1.000	> 10620.9
6.000	> 10253.6

IVOC CONCENTRATIONS (µg/m³) FROM 0.000 TO 6.000 HOURS

COMPOUND IDENTIFIED	1.0	6.0
<u>(tert-Butoxymethyl)oxirane*</u>	37.2	
1,2-Ethanediol (Ethylene glycol)	30.9	39.4
1,2-Propanediol (Propylene glycol)	37.2	42.6
<u>1,4-Dimethylpiperazine</u>		9.5
I-Acetoxy-2-propanol*		23.9
I-Butanol (N-Butyl alcohol)	471 .0	134.8
I-Dodecene	29.3	
I-Hexanol, 2-ethyl	71.4	80.7
I-Nonene, 4,6,8-trimethyl- (9CI)*	8.8	8.0
1-Octanol		11.0
I-Octanol, 2-butyl- (8CI9CI)	14.7	
1-Octene, 3-ethyl-*	26.5	4.9

COMPOUND IDENTIFIED	1.0	6.0
1-Pentanol, 3-methyl	8.3	4.9
1-Phenyl-1-propyne		13.5
1-Propanol (Propyl alcohol)	118.9	19.2
1-Tetradecene	7.6	
1-Undecene	35.3	
1H-Indene, 2,3-dihydro-1,1,3-trimethyl-*	7.9	
1 H-Indene, 2,3-dihydro-1,2-dimethyl-*	28.1	48.9
1 H-Indene, 2,3-dihydro-1,3-dimethyl*	46.8	41.0
1 H-Indene, 2,3-dihydro-4,7-dimethyl-*	29.5	25.0
1 H-Indene, 2,3-dihydro-4-methyl*	69.4	59.5
1H-Phenanthro[9,10-d]imidazol-2-a mine+	81.1	119.1
2,2,4,4-Tetramethyloctane*		
2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate (Texanol)	58.0	95.9
2,2-Dimethyl-1-isopropyl-1,3-propan ediol monoisobutyrate (Texanol)	34.2	41.9
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)- (9'	90.7	134.4
2,6-Di-tert-butyl-4-methylphenol (BHT)	1823.6	2585.8
2-Ethylhexanoic acid	664.5	1210.1
2-Pentanone, 4-hydroxy-4-methyl- (8CI9CI)*	447.3	303.9
2-Pentanone, 4-methyl (Methyl isobutyl ketone, MIBK)	13.7	
2-Propanol (Isopropanol)	7.7	
2-Propanol, 1,3-dichloro-	53.9	41.3

COMPOUND IDENTIFIED	1.0	6.0
2-Propanol, 1-[1-methyl-2-(2-propenyloxy)ethoxy]-*	29.0	
2-Propenal*		12.3
2-Propenal, 2-methyl*	4.5	
2-Pyrrolidinone, 1-methyl		14.4
2H-2,4a-Methanonaphthalene, 1,3,4,5,6,7-hexahydro-1,1,5,5-tetra methyl-, (2S)-*	40.1	37.9
3-Carene*	63.4	
3-Pentanol*	6.8	
3-Penten-2-one, 4-methyl- (8CI9CI)*	18.0	13.9
4-Isobutylmorpholine	> 1135.3**	> 1534.1'''
Acetamide, N,N-dimethyl- (8CI9CI)	337.8	362.7
Acetate, butyl	10.2	
Acetic acid		69.7
Acetic acid, 2-ethylbutyl ester'	14.8	11.7
Acetic acid, phenylmethyl ester		39.8
Acetone (2-Propanone)	226.4	94.5
Benzaldehyde	20.0	10.6
Benzene, 1,2,4,5-tetramethyl*		37.3
Benzene, 1,2,4-trimethyl	90.9	35.4
Benzene, 1,4-dichloro	37.2	24.5
Benzene, 1-ethyl-2,4-dimethyl-*	48.9	34.5
Benzene, 1-ethyl-2-methyl (2-Ethyltoluene)	38.9	9.5
Benzene, 1-methyl-4-(1-methylethyl) (p-Cymene; 4-Isopropyltoluene)	48.6	22.0
Benzene, 4-ethyl-1,2-dimethyl*		21.6
Benzene, ethyl	9.8	

COMPOUND IDENTIFIED	1.0	6.0
Butanal (Butyraldehyde)	5.2	
Butanoic acid		8.5
Camphene	81.4	23.9
Cedrene, a*	16.0	12.8
Cyclohexane, hexyl *	42.4	35.5
Cyclohexanone	8.9	7.2
Cyclohexene, 3-methyl-6-(1-methylethylidene)-*	91.6	91.0
Cyclohexene, 4-(1,1-dimethylethyl)*		51.4
Cyclopentane, 1-methyl-3-(2-methylpropyl)-*	15.6	
Cyclopentanone*	11.7	16.6
Cyclopentasiloxane, decamethyl *	77.2	34.4
Decane	114.1	18.0
Decane, 2,2,4-trimethyl-*	37.7	
Decane, 2,6,6-trimethyl-*	43.2	
Decane, 2-methyl	40.8	
Decane, 3,8-dimethyl	35.0	
Decane, S-methyl*	73.2	
Dodecane	80.0 -	57.4
Dodecane, 2,6, IO-trimethyl-*	10.6	
Dodecane, 3-methyl- (8CI9CI)	17.5	17.2
Ethane, 1, 1, 1-trichloro	3.1	
Ethane, 1,2-dichloro	4.6	5.5
Ethanol	36.3	6.3
Ethanol, 2-(2-butoxyethoxy)		46.3
Ethanol, 2-butoxy	33.4	23.2
Ethanol, 2-chloro-*	2.8	

COMPOUND IDENTIFIED	1.0	6.0
Ethene, 1,1,2,2-tetrachloro (Tetrachloroethylene)	6.0	
Ethyl 1-methylcyclopropanecarboxylate*	60.2	
Heptane, 2,2,6,6-tetramethyl	8.1	
Heptane, 2,4,6-trimethyl	8.9	
Hexane, 2,2,5-trimethyl- (8CI9CI)*	10.2	
Hexanoic acid		27.5
Isobomyl acetate*	848.2	906.5
Limonene (Dipentene; 1-Methyl-4-(1-methylethyl)cyclohexane)	224.6	75.9
Linalool*		71.2
Morpholine, 4-ethyl-*		18.0
N,N-Dimethyl-2-propenamide	12.3	14.4
Naphthalene	115.0	95.3
Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-dimethyl -1-(1-methylethyl)-, (1S-cis)-*	13.8	
Naphthalene, 1,4,6-trimethyl*	52.4	
Naphthalene, 1,4-dimethyl	10.5	10.2
Naphthalene, 1,5-dimethyl- (8CI9CI)*	6.6	
Naphthalene, 1,6-dimethyl-4-(1-methylethyl)-*	11.6	
Naphthalene, 1-(2-propenyl)*	3.4	3.0
Naphthalene, 1-methyl	21.8	24.9
Naphthalene, 2,3,6-trimethyl- (8CI9CI)*	50.5	
Naphthalene, 2,6-dimethyl-*	9.5	
Naphthalene, 2-ethyl*		5.9

COMPOUND IDENTIFIED	1.0	6.0
Naphthalene, 2-methyl	63.4	69.7
Naphthalene,6-(1,1-dimethylethyl)-1,2,3,4-tetrahydro-*	36.4	
Nonane	14.4	
Nonane, 3,7-dimethyl*	96.5	24.1
Nonane, 3-methyl-5-propyl-*	33.0	
Nonane, 4,5-dimethyl*	140.6	
Nonane, 4-methyl	32.0	
Octane, 2,2,6-trimethyl*	50.9	11.8
Octane, 3-ethyl-2,7-dimethyl- (9CI)*	118.8	
Pentanal (Valeraldehyde)	4.1	
Pentane, 2,2,4-trimethyl (Isooctane)	2.7	
Phenol	165.1	168.3
Phenol, 2,6-bis(1,1-dimethylethyl)-4-ethyl*	34.6	
Phenol, 4-t-butyl (4-(1,1-Dimethylethyl)phenol)*		10.4
Pinene, α (2,6,6-Trimethyl-bicyclo[3.1.1]hept-2-ene)	21.7	
Propane, 2-methyl-2-nitro*	7.3	
Propanoic acid		12.4
Propanoic acid, 2,2-dimethyl-*		8.1
Propanoic acid, 2-methyl- (9CI)*		6.1
Propanoic acid, 2-methyl-2-[(trimethylsilyl)oxy]-, trimethyl*	10.1	8.2
Styrene	19.4	5.5
Styrene, 2,5-dimethyl*	31.5	28.9
Tetradecane	15.3	5.8

COMPOUND IDENTIFIED	1.0	6.0
Thiophene, 2-butyl-5-(2-methylpropyl)- (9CI)*	17.1	
Toluene (Methylbenzene)	29.5	7.8
Tridecane	20.5	14.3
Undecane	186.1	96.4
Undecane, 2,3-dimethyl-*	34.1	25.5
Undecane, 2-methyl	27.6	
Undecane, 3,9-dimethyl- (8CI)*	42.8	42.0
Undecane, 5-methyl- (8CI9CI)*	30.6	
Unidentified	374.8	503.3
Xylene (para and/or meta)	40.8	
Xylene, ortho	28.9	9.4

*Indicates best NIST/EPA/NIH library match only.

"Values marked with ">" symbol were outside linear range of detector. Concentration value is a lower bound only.

Individual compounds and TVOC (total volatile organic, compounds) are calibrated relative to toluene.

TVOC detection limit: 0.9 µg/m³. Individual detection limits may vary, depending on instrument response.

APPENDIX D

INDIVIDUAL VOC CONCENTRATIONS DURING EXPOSURES TO SYNTHESIZED MIXTURES

TABLE D-I
CONCENTRATION DATA FOR EXPOSURE TO
PRIME URETHANE "A" TEST MIXTURE

Compound	Concentration (mg/m ³)			Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (middle 10 minutes of exposure)	Sample 3 (last 10 minutes of exposure)		
2,6-Di-tert-butyl-4-methylphenol	6.2	12.3	12.1	10.2	33.9
1,4-Dimethylpiperazine	11.1	16.2	17.2	14.8	21.9
1,1,1-Trichloroethane	6.8	7.0	7.2	7.0	2.4
Adiponitrile	0.3	0.5	5.8	2.2	143
Styrene	5.6	6.1	6.1	5.9	4.2
Octamethylcyclotetrasiloxane	3.0	3.2	3.3	3.2	3.5
Ether*		0.8	1.3		
Ethyl acetate*		0.5	0.8		
Methanonaphthalene*	0.2	0.3	0.3		
Isooctane*		0.2	0.2		
Methanol*	0.1	0.2			

Compound	Concentration (mg/m ³)			Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (middle 10 minutes of exposure)	Sample 3 (last 10 minutes of exposure)		
Hexane*		0.1	< 0.1		
1,1-Dichloroethene*		0.1			
Hexamethylcyclotetrasiloxane*		0.1			
Benzene*			0.1		

*Quantitation relative to toluene response only.

TABLE D-2
CONCENTRATION DATA FOR EXPOSURE TO
PRIME URETHANE "A" TEST MIXTURE WITH BHT REMOVED

Compound	Concentration (mg/m ³)			Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (middle 10 minutes of exposure)	Sample 3 (last 10 minutes of exposure)		
2,6-Di-tert-butyl-4-methylphenol	nd	nd	nd	nd	---
1,4-Dimethylpiperazine	13.8	19.2	15.8	16.3	16.8
1,1,1-Trichloroethane	10.0	10.5	8.6	9.7	10.0
Adiponitrile	nd	0.2	1.1	0.4	132
Styrene	6.2	6.7	6.7	6.5	4.4
Octamethylcyclotetrasiloxane	4.4	4.3	4.6	4.4	3.4
Methanol*	4.5	3.1	1.9		
Pyrazine*	0.1	0.2	0.3		
Ether*			3.5		
1,1-Dichloroethene*			1.7		
Isooctane*			0.6		

Compound	Concentration (mg/m ³)			Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (middle 10 minutes of exposure)	Sample 3 (last 10 minutes of exposure)		
Ethyl acetate*			0.5		
Acetone*			0.3		
Hexane*			0.1		
Benzene*			0.1		

*Quantitation relative to toluene response only.

TABLE D-3
CONCENTRATION DATA FOR EXPOSURE TO
PRIME URETHANE "A" TEST MIXTURE
WITH BHT AND 1,4-DIMETHYLPIPERAZINE REMOVED

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10-30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
2,6-Di-tert-butyl-4-methylphenol	nd	nd	nd	nd	nd	---
1,4-Dimethylpiperazine	nd	nd	nd	nd	nd	---
1,1, 1-Trichloroethane	2.9	2.7	2.5	2.5	2.7	8.0
Adiponitrile	nd	1.8	5.2	6.4	3.3	89
Styrene	4.6	5.1	4.3	4.9	4.7	7.6
Octamethylcyclotetrasiloxane	0.3	0.8	1.0	1.4	0.9	51

TABLE D-4

CONCENTRATION DATA FOR EXPOSURE TO LOW CONCENTRATION PRIME URETHANE "A" TEST MIXTURE

Compound	Concentration (mg/m ³)			Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (middle 10 minutes of exposure)	Sample 3 (last 10 minutes of exposure)		
2,6-Di-tert-butyl-4-methylphenol	2.0	5.1	6.6	4.6	50.7
1,4-Dimethylpiperazine	0.6	2.3	3.2	2.0	66.9
1,1,1-Trichloroethane	0.9	1.3	1.6	1.3	28.4
Adiponitrile	nd	nd	1.0	0.4	173
Styrene	1.5	1.8	1.7	1.7	9.7
Octamethylcyclotetrasiloxane	2.5	2.7	2.4	2.6	6.4
Methanonaphthalene*	0.7	0.9	0.5		

*Quantitation relative to toluene response only

TABLE D-5
CONCENTRATION DATA FOR EXPOSURE TO
PRIME URETHANE "B" TEST MIXTURE

Compound	Concentration (mg/m ³)			Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (middle 10 minutes of exposure)	Sample 3 (last 10 minutes of exposure)		
2,6-Di-tert-butyl-4-methylphenol	3.5	9.9	12.8	8.7	54.6
N,N-Dimethylacrylamide	2.6	6.8	9.1	6.2	53.2
1,2,3-Trichloropropane	5.4	6.0	7.2	6.2	15.1
N,N-Dimethylformamide	0.6	1.2	1.3	1.0	36.6
N,N-Dimethylacetamide	0.2	0.9	1.2	0.8	71.2
Octamethylcyclotetrasiloxane	4.6	4.6	4.9	4.7	3.5
1,3-Dichloro-2-propanol	0.8	2.0	3.0	1.9	58.7
Methanonaphthalene*	1.2	1.7			
1-Methylpentylhydroperoxide*	< 0.1				
Ethyl acetate*		0.1			
Acetyl chloride*	0.1	0.1			

Compound	Concentration (mg/m ³)			Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (middle 10 minutes of exposure)	Sample 3 (last 10 minutes of exposure)		
1-Chloro-2-propanone*			0.1		
Ether*		0.1			
Toluene*					
(Chloromethyl)-oxirane*		0.1	0.2		
Isooctane*		< 0.1			
Unidentified*		0.1			

*Quantitation relative to toluene response only.

TABLE B-6
CONCENTRATION DATA FOR EXPOSURE TO
PRIME URETHANE "B" TEST MIXTURE WITH BHT REMOVED

Compound	Concentration (mg/m ³)			Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (middle 10 minutes of exposure)	Sample 3 (last 10 minutes of exposure)		
2,6-Di-tert-butyl-4-methylphenol	nd	NA*	nd	nd	---
N,N-Dimethylacrylamide	22.9	NA*	24.3	16.8	4.1
1,2,3-Trichloropropane	12.5	NA*	14.2	7.7	9.1
N,N-Dimethylformamide	3.7	NA*	3.3	3.5	7.0
N,N-Dimethylacetamide	6.4	NA*	5.8	4.0	6.4
Octamethylcyclotetrasiloxane	5.8	NA*	5.9	6.7	0.7
1,3-Dichloro-2-propanol	9.5	NA*	13.4	5.8	24.2
(Chloromethyl)-oxirane**	0.5	NA*	0.1		

*NA = not available, sample lost during analysis
**Quantitation relative to toluene response only.

TABLE D-7

CONCENTRATION DATA FOR EXPOSURE TO LOW CONCENTRATION PRIME URETHANE "B" TEST MIXTURE

Compound	Concentration (mg/m ³)			Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (middle 10 minutes of exposure)	Sample 3 (last 10 minutes of exposure)		
2,6-Di-tert-butyl-4-methylphenol	2.1	4.3	4.6	3.7	38.3
N,N-Dimethylacrylamide	5.6	6.9	6.0	6.2	10.8
1,2,3-Trichloropropane	4.6	4.6	4.6	4.6	0.7
N,N-Dimethylformamide	0.7	0.8	0.7	0.7	7.7
N,N-Dimethylacetamide	0.5	0.8	0.5	0.6	28.8
Octamethylcyclotetrasiloxane	4.1	4.1	4.0	4.1	1.2
1,3-Dichloro-2-propanol	1.7	2.7	3.7	2.7	36.8
Methanonaphthalene*	0.6	0.9	1.0		
(Chloromethyl)-oxirane*	0.2	0.2			

*Quantitation relative to toluene response only.

TABLE D-8
CONCENTRATION DATA FOR EXPOSURE TO
SPONGE RUBBER TEST MIXTURE

Compound	Concentration (mg/m ³)			Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (middle 10 minutes of exposure)	Sample 3 (last 10 minutes of exposure)		
N,N-Dimethylformamide	0.3	0.2	0.5	0.3	48.1
N,N-Dimethylacetamide	0.5	1.0	1.9	1.1	63.9
Toluene	1.0	0.8	1.1	1.0	14.9
Undecane	9.2	8.7	10.0	9.3	6.6
1,2,4-Trimethylbenzene	13.8	12.9	14.9	13.9	7.5
2-Methylnaphthalene	11.7	11.0	11.7	11.5	3.5
1,4-Dimethylnaphthalene	9.0	7.3	7.9	8.1	10.9
Diphenyl ether	2.2	2.4	2.5	2.4	7.9
2-Ethyltoluene*	0.1	0.1	0.1		
Butylbenzene*	< 0.1	< 0.1	< 0.1		

*Quantitation relative to toluene response only.

TABLE B-9

CONCENTRATION DATA FOR EXPOSURE TO SPONGE RUBBER
TEST MIXTURE WITH 2-METHYLNAPHTHALENE REMOVED

Compound	Concentration (mg/m ³)			Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (middle 10 minutes of exposure)	Sample 3 (last 10 minutes of exposure)		
N,N-Dimethylformamide	0.2	0.5	0.7	0.5	46.5
N,N-Dimethylacetamide	0.5	2.0	2.4	1.6	59.8
Toluene	1.0	1.4	1.5	1.3	22.6
Undecane	8.3	10.3	12.1	10.2	18.5
1,2,4-Trimethylbenzene	13.3	16.7	18.7	16.2	17.0
2-Methylnaphthalene	0.2	0.3	0.5	0.3	52.4
1,4-Dimethylnaphthalene	1.2	2.5	9.8	4.5	103
Diphenyl ether	0.5	1.6	2.1	1.4	56.8
2-Ethyltoluene*		0.2	0.2		
1-Methylpropylbenzene*			< 0.1		
Butylbenzene*	< 0.1	0.1	0.1		

*Quantitation relative to toluene response only.

TABLE B-30

SUMMARY CONCENTRATION DATA FOR EXPOSURE TO
SPONGE RUBBER TEST MIXTURE WITH 2-METHYLNAPHTHALENE
AND 1,4-DIMETHYLNAPHTHALENE REMOVED

Compound	Concentration (mg/m ³)			Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (middle 10 minutes of exposure)	Sample 3 (last 10 minutes of exposure)		
N,N-Dimethylformamide	nd	nd	nd	nd	---
N,N-Dimethylacetamide	nd	nd	0.6	0.2	173
Toluene	0.9	1.2	1.2	1.1	17.6
Undecane	7.6	11.7	13.9	11.1	28.7
1,2,4-Trimethylbenzene	11.9	16.1	17.4	15.1	19.0
2-Methylnaphthalene	nd	nd	nd	nd	---
1,4-Dimethylnaphthalene	nd	nd	nd	nd	---
Diphenyl ether	nd	1.0	2.4	1.1	107
2-Ethyltoluene*	0.1	0.1	0.2		

*Quantitation relative to toluene response only.

TABLE E-33

CONCENTRATION DATA FOR EXPOSURE TO LOW CONCENTRATION SPONGE RUBBER TEST MIXTURE
(A)

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
N,N-Dimethylformamide	nd	nd	nd	nd	nd	---
N,N-Dimethylacetamide	nd	nd	nd	nd	nd	---
Toluene	0.4	0.4	0.4	0.3	0.4	8.5
Undecane	4.7	5.8	5.9	5.1	5.4	10.0
1,2,4-Trimethylbenzene	7.4	8.3	8.4	7.6	8.0	6.5
2-Methylnaphthalene	3.3	5.4	5.8	5.8	5.1	23.5
1,4-Dimethylnaphthalene	2.9	6.6	9.2	10.5	7.3	46.1
Diphenyl ether	0.4	1.1	1.3	1.5	1.1	42.5
2-Ethyltoluene*	< 0.1	< 0.1	< 0.1	< 0.1		
1-Methylnaphthalene*	0.1	0.2	0.2	0.2		

*Quantitation relative to toluene response only.

TABLE D-02

CONCENTRATION DATA FOR EXPOSURE TO LOWER CONCENTRATION SPONGE RUBBER TEST
MIXTURE (B)

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
N,N-Dimethylformamide	nd	0.2	nd	0.1	0.1	020
N,N-Dimethylacetamide	nd	0.9	nd	0.5	0.3	116
Toluene	0.2	0.5	0.2	0.3	0.3	42.7
Undecane	2.4	4.7	2.6	3.7	3.4	31.8
1,2,4-Trimethylbenzene	9.0	7.2	4.8	5.7	9.6	19.5
2-Methylnaphthalene	0.9	3.1	1.2	2.4	1.9	54.2
1,4-Dimethylnaphthalene	0.7	2.0	1.1	1.7	1.4	43.4
Diphenyl ether	0.2	0.9	0.4	0.5	0.8	40.5
2-Ethyltoluene*	< 0.1	0.1	< 0.1	< 0.1		
1-Methylnaphthalene*	< 0.1	0.1	< 0.1	0.1		
1-Undecene*	< 0.1	< 0.1				

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
2,6-Di-tert-butyl-4- methylphenol*		< 0.1				
Isooctane*				< 0.1		
Benzene*	< 0.1					

*Quantitation relative to toluene response only.

TABLE D-13

CONCENTRATION DATA FOR EXPOSURE TO LOWEST CONCENTRATION MIXTURE (C) SPONGE RUBBER TEST

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
N,N-Dimethylformamide	0.7	0.7	0.9	0.9	0.8	11.7
N,N-Dimethylacetamide	0.4	0.6	0.5	0.7	0.5	29.6
Toluene	0.2	0.1	0.1	0.1	0.1	98.0
Undecane	2.2	2.2	2.1	0.7	1.8	39.7
1,2,4-Trimethylbenzene	3.5	3.3	3.3	2.9	3.2	7.8
2-Methylnaphthalene	1.1	1.8	1.0	0.2	1.0	64.8
1,4-Dimethylnaphthalene	0.9	2.7	0.7	0.1	1.1	10d
Diphenyl ether	0.1	0.3	0.3	0.1	0.2	38.2
Trichlorofluoromethane*		0.1				
Octamethylcyclotetrasiloxane*	< 0.1					

*Quantitation relative to toluene response only.

TABLE D-14
CONCENTRATION DATA FOR EXPOSURE TO
BONDED URETHANE TEST MIXTURE

Compound	Concentration (mg/m ³)			Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (middle 10 minutes of exposure)	Sample 3 (last 10 minutes of exposure)		
2,6-Di-tert-butyl-4-methylphenol	3.7	6.3	7.8	5.9	34.3
Adiponitrile	0.8	1.8	2.2	1.6	45.1
Undecene	12.5	15.5	17.0	15.0	15.3
Tridecene	5.2	8.8	8.3	7.4	25.9
Decane	1.5	1.8	1.9	1.8	13.2
N,N-Dimethylacetamide	9.9	8.5	9.5	9.3	7.8
TXIB	0.5	0.8	1.7	1.0	61.1
Methanonaphthalene*	3.1	2.7	2.4		
1,3,3-Trimethylbicyclo[2.2.1]heptane		0.3			
4-Phenylcyclohexene*	0.1	0.1	0.1		
1-Decene*		< 0.1			

*Quantitation relative to toluene response only.

TABLE D-15
CONCENTRATION DATA FOR EXPOSURE TO
BONDED URETHANE TEST MIXTURE WITH BHT REMOVED

Compound	Concentration (mg/m ³)			Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (middle 10 minutes of exposure)	Sample 3 (last 10 minutes of exposure)		
2,6-Di-tert-butyl-4-methylphenol	nd	nd	nd	nd	---
Adiponitrile	2.9	3.0	0.8	2.3	54.1
Undecene	18.3	21.9	20.8	20.3	8.9
Tridecene	11.2	21.9	23.2	18.8	35.1
Decane	1.9	2.3	2.1	2.1	8.7
N,N-Dimethylacetamide	6.9	9.4	8.6	8.3	15.0
TXIB	4.7	5.2	2.6	4.2	33.6
2,3-Dimethyl-1,4-hexadiene*	0.1	0.1	0.1		
1-Dodecyne*	0.1	0.1	0.1		
Ethyl acetate*		0.1			
c-1,5-Heptadiene*			0.1		

Compound	Concentration (mg/m ³)			Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (middle 10 minutes of exposure)	Sample 3 (last 10 minutes of exposure)		
1-Dodecene*		0.1			

*Quantitation relative to toluene response only.

TABLE D-16
CONCENTRATION DATA FOR EXPOSURE TO
LOW CONCENTRATION BONDED URETHANE TEST MIXTURE

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
2,6-Di-tert-butyl-4-methylphenol	2.1	5.0	7.9	6.5	5.4	46.3
Adiponitrile	nd	nd	nd	nd	nd	---
Undecene	9.1	9.4	10.6	11.4	10.1	10.7
Tridecene	2.7	5.1	6.2	7.1	5.3	35.8
Decane	0.9	0.9	1.0	1.2	1.0	12.2
N,N-Dimethylacetamide	1.1	2.5	0.7	3.4	1.9	64.2
TXIB	nd	0.1	0.3	0.3	0.2	93.1
Methanonaphthalene*	0.2	0.4	0.5	0.3		
Norflurane*	0.1	0.2				
Ether*	0.1					
Isooctane*	0.1					

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
 Benzene	< 0.1					

*Quantitation relative to toluene response only.

TABLE D-17
CONCENTRATION DATA FOR EXPOSURE TO SBR CARPET TEST MIXTURE

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
4-PCH	5.2	8.7	8.7	9.2	8.0	23.0
4-VCH	2.3	2.3	2.5	2.3	2.4	3.1
Styrene	6.2	6.3	6.3	6.2	6.3	1.0
Toluene	10.6	10.8	11.1	10.4	10.7	2.6
Isooctane	1.9	2.2	2.2	2.0	2.1	6.8
Acetic acid	nd	nd	4.8	nd	1.2	200
Propylbenzene	2.6	2.7	2.7	2.7	2.7	1.1
Dodecanol	nd	nd	nd	nd	nd	---
Cyclohexanol	3.9	4.9	5.5	5.3	4.9	14.6
Undecane	6.1	7.0	7.0	7.1	6.8	6.7
3-Ethenyl-4-(1-methylethenyl)cyclohexene*	0.1	0.1	0.2	0.2		
Octamethylcyclotetrasiloxane*	0.1		< 0.1	0.3		

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
Cyclohexene*		0.1		0.1		

*Quantitation relative to toluene response only.

TABLE D-18

CONCENTRATION DATA FOR EXPOSURE TO SBR CARPET TEST MIXTURE WITH DECANOL

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
4-PCH	6.9	9.2	8.9	NA*	8.3	14.8
4-VCH	2.4	2.3	1.6	NA*	2.1	21.2
Styrene	6.1	5.8	4.4	NA*	5.5	16.7
Toluene	10.5	9.6	7.5	NA*	9.2	16.8
Isooctane	2.2	2.0	1.4	NA*	1.9	22.7
Acetic acid	nd	0.5	nd	NA*	0.2	173
Propylbenzene	2.7	2.6	2.1	NA*	2.8	13.2
Decanol	nd	5.5	12.6	NA*	4.2	105
Cyclohexanol	6.0	5.4	3.7	NA*	5.1	23.1
Undecane	6.2	6.2	7.0	NA*	6.5	7.3
Substituted bicyclo[2.2.1]heptanes**	0.2	0.2	0.2			

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
2,6-di-tert-butyl-4- methylphenol**			0.1			
Undecene**	0.1					

*NA = not available, sample lost during analysis.

** Quantitation relative to toluene response only.

TABLE D-19
CONCENTRATION DATA FOR EXPOSURE TO
COMPLAINT SYSTEM "A" TEST MIXTURE

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
2,6-Di-tert-butyl-4-methylphenol	0.1	9.0	15.3	13.6	9.5	71.4
Phenol	0.8	1.3	2.6	2.7	1.8	41.4
N,N-Dimethylacetamide	1.5	2.2	3.8	2.0	2.4	41.3
Nonanal	0.6	0.8	1.4	1.4	1.1	39.8
3-Methylcyclohexanol	1.9	2.4	3.5	3.3	2.8	27.3
1,2,4-Trimethylbenzene	4.0	4.3	5.4	4.7	4.6	13.7
Undecene	20.1	21.5	28.5	26.7	24.2	16.7
Decane	4.7	4.5	5.6	4.8	4.9	10.0
o-Hydroxybiphenyl	14.6	< 0.1	nd	nd	3.7	199
3-Methylhexane*	0.1	0.1	0.1	0.1		
2-Methylhexane*	0.1	0.1	0.1	0.1		

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	(30 Sample 503 - minutes of exposure)	(last Sample 104 minutes of exposure)		
Heptane*	0.1	0.1	0.1	0.1		
Decamethylcyclopentasiloxane*	0.3					
Ether*			0.2			
Methanonaphthalene*	0.1					
Isooctane*		< 0.1	0.1			

*Quantitation relative to toluene response only.

TABLE D-20
CONCENTRATION DATA FOR EXPOSURE TO
COMPLAINT SYSTEM "A" TEST MIXTURE (REPEAT)

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
2,6-Di-tert-butyl-4-methylphenol	6.1	7.7	9.1	5.9	7.2	20.9
Phenol	1.7	2.5	5.0	4.0	3.3	45.5
N,N-Dimethylacetamide	2.0	3.0	0.5	5.9	2.9	79.8
Nonanal	1.1	1.1	1.9	2.0	1.5	31.7
3-Methylcyclohexanol	3.2	2.4	3.7	3.8	3.3	19.1
1,2,4-Trimethylbenzene	4.5	3.5	4.9	4.8	4.4	14.0
Undecene	> 18.2*	> 15.5*	> 19.8*	> 18.7*	> 18.0*	10.3
Decane	4.8	3.8	5.2	5.1	4.7	13.1
1-Undecyne**			< 0.1	< 0.1		
Methanonaphthalene**		< 0.1				
4-Phenylcyclohexene**	0.1	< 0.1	< 0.1			

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
2-Ethyltoluene**			< 0.1	< 0.1		
Heptane**	0.1	0.1	0.1	0.1		
2-Methylhexane**	0.1	0.1	0.1	0.1		
3-Methylhexane**	0.1	0.1	0.1	0.1		

*Concentration estimated, data for this compound were outside of linear range of mass spec.

**Quantitation relative to toluene response only.

TABLE D-21

CONCENTRATION DATA FOR EXPOSURE TO COMPLAINT SYSTEM "A" TEST MIXTURE
WITH BHT REMOVED

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
2,6-Di-tert-butyl-4-methylphenol	< 0.1	nd	< 0.1	nd	< 0.1	117
Phenol	1.4	2.3	1.4	2.9	2.0	37.7
N,N-Dimethylacetamide	0.6	2.7	2.6	4.9	2.7	65.4
Nonanal	1.6	1.1	1.5	1.9	1.5	22.9
3-Methylcyclohexanol	2.5	2.7	3.4	3.5	3.0	16.4
1,2,4-Trimethylbenzene	4.5	3.9	4.3	4.8	4.4	7.8
Undecene	22.4	20.2	21.1	24.6	22.1	8.5
Decane	4.7	4.0	4.4	4.8	4.5	8.2
o-Hydroxybiphenyl	nd	nd	nd	0.3	0.1	200
1,1'-Biphenyl*		< 0.1		0.2		
2-Ethyl-1-hexanol*				< 0.1		

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
1-Undecyne*	< 0.1	< 0.1	< 0.1	< 0.1		
5-Undecene*		0.1	0.1	0.1		
Ethyl acetate*	0.1					
Benzene*	< 0.1					
4-Ethyltoluene*	< 0.1	< 0.1	< 0.1	< 0.1		
Dibenzofuran*				< 0.1		
1,1,1 -Trichloroethane*	0.1	< 0.1	< 0.1			
Ether*	0.4		0.3			
2-Ethylhexanal*				0.1		
Isooctane*	0.4	0.2	0.2			
Undecane*	0.2					

*Quantitation relative to toluene response only.

TABLE E-22

CONCENTRATION DATA FOR EXPOSURE TO COMPLAINT SYSTEM "A" TEST MIXTURE
WITH BHT REMOVED (REPEAT)

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
2,6-Di-tert-butyl-4-methylphenol	nd	nd	nd	nd	nd	---
Phenol	0.8	1.4	1.6	2.0	1.5	34.1
N,N-Dimethylacetamide	0.2	1.0	1.0	1.3	0.9	51.5
Nonanal	nd	nd	0.7	0.7	0.4	116
3-Methylcyclohexanol	1.4	1.7	1.6	1.8	1.7	10.6
1,2,4-Trimethylbenzene	4.2	3.8	3.8	3.9	3.9	5.4
Undecene	15.5	18.5	17.8	18.5	17.6	8.2
Decane	4.1	4.2	4.0	4.3	4.2	7.9
1,1'-Biphenyl*		< 0.1	< 0.1	0.1		
4-Phenylcyclohexene*	< 0.1					
Ethyl acetate*		0.9	0.5			

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
Benzene*		0.1	0.1			
Carbon disulfide*		0.5	0.4			
Chloroform*		0.4	0.2			
Dibenzofuran*		< 0.1	0.1	0.2		
1,1,1-Trichloroethane*		0.1	0.1			
Ether*		1.5	1.4			
Trichloromonofluoromethane*		1.1	1.2			
Isooctane*		0.3	0.3			

*Quantitation relative to toluene response only ●

TABLE D-23

CONCENTRATION DATA FOR EXPOSURE TO COMPLAINT SYSTEM "B" TEST MIXTURE

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
2,6-Di-tert-butyl-4-methylphenol	3.8	8.4	9.4	10.1	7.9	36.2
Isobornyl acetate	2.5	2.2	3.7	2.9	2.8	23.2
N,N-Dimethylacetamide	3.2	2.0	3.7	2.4	2.8	28.5
Undecene	3.4	2.4	3.8	3.1	3.2	18.9
4-Morpholine ethanamine	0.1	nd	0.6	nd	0.2	173
Camphene*	0.1	0.4	0.2	0.1		
Methanonaphthalene*		0.3	0.2	0.1		
6-Isopropylidene-1-methyl-bicyclo[3.1.0]hexane*			0.1			
cis-2-Methylene-3-(1-methylethyl)cyclohexanol acetate*		< 0.1	< 0.1	0.1		

*Quantitation relative to toluene response only.

TABLE D-24

CONCENTRATION DATA FOR EXPOSURE TO COMPLAINT SYSTEM "B" TEST MIXTURE WITH BHT REMOVED

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
2,6-Di-tert-butyl-4-methylphenol	nd	< 0.1	0.1	0.1	0.1	69.6
Isobornyl acetate	0.1	1.5	3.7	4.2	2.4	81.8
N,N-Dimethylacetamide	1.7	1.9	3.3	4.0	2.7	41.0
Undecene	3.1	3.0	5.3	5.7	4.3	33.3
4-Morpholine ethanamine	nd	nd	nd	7.4	1.9	200
Camphene*	2.1	0.1	0.1	0.1		
1-Dodecene*				0.1		
1-Octanol*			0.4			
4-Isobutylmorpholine*			3.9	0.1		
1-Methyl-4-(1-methylethylidene)-cyclohexene*			0.1	0.1		
Methylcyclopentadiene			0.1	0.3		

Compound	Concentration (mg/m ³)				Mean Concentration (µg/m ³)	Precision (% RSD)
	Sample 1 (first 10 minutes of exposure)	Sample 2 (10 - 30 minutes of exposure)	Sample 3 (30 - 50 minutes of exposure)	Sample 4 (last 10 minutes of exposure)		
Octyl-oxirane*			< 0.1			
Isooctane*			0.1			
1,7,7-Trimethyl- tricyclo[2.2.1.0 ^{2,6}]heptane*	0.1					
Undecane*			0.4			
2-Methylundecane*			0.1			

*Quantitation relative to toluene response only.